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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/615,277 | 07/07/2003 | Victor Pinto | ZRAN.038US0 | 8223 |

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EXAMINER

SELBY, GEVELL V

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,277

Applicant(s)

PINTO ET AL.

Examiner

Gevell Selby

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 0703 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Reinhart et al., US 7,034,874.**

In regard to claim 1, Reinhart et al., US 7,034,874, discloses a method of distinguishing high quality elements from potentially defective elements in an array of photo-sensitive elements while illuminated with an object field of varying light intensity thereacross, comprising:

calculating difference values between outputs of individual ones of the elements and neighboring elements (see column 4, lines 8-17: calculates difference of neighboring pixels to determine if the pixel is an outlier),

if the difference values for a given one of the individual elements have different signs, identifying the given element to be of high quality (see column 4, lines 11-13: not an outlier or defective pixel), and

if the difference values for the given element have the same signs, identifying the given element to be potentially defective (see column 4, lines 2-6: an outlier pixel where both neighboring pixels being greater than or less than the

central pixel reads on a possible defective pixel where the difference values for both neighboring pixels are the same sign).

In regard to claim 1, Reinhart et al., US 7,034,874, discloses a method of identifying and correcting defective ones of an array of photo-sensitive pixels, comprising:

- directing an object field of varying light intensity across the array, calculating difference values between outputs of individual ones of the pixels and a plurality of neighboring pixels (see column 4, lines 8-17: calculates difference of neighboring pixels to determine if the pixel is an outlier),

- if the difference values for a given one of the pixels have different signs, utilizing the output of the given pixel for data of the object field (see column 4, lines 2-17 and 57-60: pixels that are not identified as bad outlier pixels are not replaced),

- if the difference values for the given pixel have the same sign, determining whether the difference values are in excess of a threshold (see column 4, lines 10-17),

- if the difference values are not in excess of the threshold, utilizing the output of the given pixel for data of the object field (see column 4, lines 2-17 and 57-60: pixels that are not identified as bad outlier pixels are not replaced), and

- if the difference values are in excess of the threshold, calculating a value of the given pixel from at least some of the neighboring pixels and utilizing the calculated pixel value in data of the object field (see column 4, lines 57-67).

Art Unit: 2622

In regard to claim 3, Reinhart et al., US 7,034,874, discloses the method of claim 2, wherein said threshold includes either of at least first or second quantities that are different from each other depending upon whether said same sign is positive or negative (see column 4, lines 18-22).

Allowable Subject Matter

2. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 5,805,216, discloses a defective pixel correction circuit that corrects a defective pixel in an image sensor.

US 2004/0051798, discloses a bad pixel correction algorithm for an image sensor.

US 2004/0169746, discloses identifying defective pixels based on neighboring pixels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

Art Unit: 2622

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs



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